

**WE CLAIM:**

1           1.     A method for handing Object Request Broker (ORB) communications for a system  
2 designed in the Common Object Request Broker Architecture (CORBA), comprising the steps of:  
3                 creating a plug-in component for a desired client/server application program protocol  
4 selected from multiple and diverse communications protocols, said component including a protocol  
5 adaptor/connector connecting the ORB and client server applications;

6                 structuring a base communications protocol for the ORB to accept said plug-in  
7 components so as to translate the client/server application protocol to the General Inter-ORB  
8 Protocol (GIOP) of CORBA; and

9                 combining the plug-in component and the base communications protocol so that the  
10 combination ORB handles communications from the client/server application in the desired  
11 application protocol.

1           2.     The method for handling ORB communications as set forth in claim 1, further  
2 including the step of:

3                 registering at least one other plug-in component for a desired communications  
4 protocol out of a plurality of protocols; and

5                 substituting one of the plug-in components in the combination to cause the system  
6 to communicate in the protocol related to the substituted protocol.

1           3.     The method for handling ORB communications as set forth in claim 2 wherein the  
2 plug-in component includes a scheduler and the schedules changes when the other plug-in is

3 substituted.

1 4. The method for handling ORB communications as set forth in claim 1, wherein the  
2 protocol adaptor/connector defines a connector interface which includes a protocol connector.

1 5. The method for handling ORB communications as set forth in claim 1, wherein the  
2 protocol adaptor/connector defines an adapter interface which includes a Listener and a dispatcher.

1 6. Apparatus for handing Object Request Broker (ORB) communications for a system  
2 designed in the Common Object Request Broker Architecture (CORBA), comprising  
3 a plug-in component for a desired protocol related to one of a multiple of diverse  
4 communications protocols; and  
5 a base communications protocol component for the ORB, said base protocol being  
6 adapted to accept said plug-in component so as to translate the internal CORBA structure to a  
7 desired communications protocol.

1 7. An article of manufacture having computer readable program means embodied therein  
2 for causing Object Request Broker (ORB) communications for a system designed in the Common  
3 Object Request Broker Architecture (CORBA) to operate with a desired protocol related to one of  
4 a multiple diverse communications protocols, comprising  
5 a plug-in component for a desired client/server application program protocol selected  
6 from multiple and diverse communications protocols, said component including a protocol

7 adaptor/connector connecting the ORB and client server applications;  
8 a base communications protocol for the ORB to accept said plug-in components so  
9 as to translate the client/server application protocol to the General Inter-ORB Protocol (GIOP) of  
10 CORBA; and  
11 wherein the plug-in component and the base communications protocol are combined  
12 so that the combination ORB handles communications from the client/server application in the  
13 desired application protocol.

1 8. The article of manufacture as set forth in claim 7, further comprising:  
2 at least one other plug-in component for a desired communications protocol out of  
3 a plurality of protocols, said other plug-in component being registered; and  
4 means for substituting one of the other plug-in components in the combination to  
5 cause the system to communicate in the protocol related to the substituted protocol.

6 9. The article of manufacture as set forth in claim 8 wherein the plug-in component  
7 includes a scheduler and the schedules changes when the other plug-in is substituted.

1 10. The article of manufacture as set forth in claim 7, wherein the protocol  
2 adaptor/connector defines a connector interface which includes a protocol connector.

1 11. The article of manufacture as set forth in claim 7, wherein the protocol  
2 adaptor/connector defines an adapter interface which includes a Listener and a dispatcher.

1           12.     A method for handing requests for service over a communications system designed  
2 with multiple protocol levels, comprising the steps of:

3           at a client processor:

4                 providing at least one protocol connector;

5                 using a client stub component to provide a plug-in protocol connector component for  
6 at least one desired client/server application program protocol selected from multiple and diverse  
7 communications protocols;

8                 using a client connection manager component to establishing a connection between  
9 one of said protocol connector and said plug-in protocol connector, and at least one protocol  
10 connection component; and

11                 connecting the protocol connection to a transport connection, said transport  
12 connection establishing communications with a server processor; and

13           at said server processor:

14                 providing at least one protocol listener;

15                 using a server skeleton component to provide a plug-in listener for at least said  
16 desired client/server application program protocol;

17                 using a server dispatcher component to establishing a connection between one of said  
18 listener and and said plug-in listener, and a protocol adapter, said adapter establishing  
19 communications with said transport connection of said client.

1           13.     The method for handing requests for service over a communications system as set  
2 forth in claim 12, further including the step of:

3                   using said client stub to provide at least one other plug-in protocol component for a  
4   desired communications protocol out of a plurality of protocols; and  
5                   using said client connection manager to substitute the other plug-in protocol  
6   component for connection to said protocol connector.

1               14.    The method for handing requests for service over a communications system as set  
2   forth in claim 13, wherein the plug-in component includes a scheduler and the schedules changes  
3   when the other plug-in is substituted.

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